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ORGANIZING A PROVINCE-WIDE  
SYSTEM OF EDUCATION  
TO ACCOMMODATE THE EMERGING FUTURE

by

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ORGANIZING A PROVINCE-WIDE SYSTEM OF EDUCATION  
TO ACCOMMODATE THE EMERGING FUTURE

I engage, here, in a difficult and delicate task: the development of proposed organizational structures for a total provincial educational system -- a system which is to be woven carefully into the fabric of the society of which it is a part; a system which is to be in tune with the present, but in anticipation of the future, and prepared to renew itself continuously to accommodate that emerging future; and a system which is to be organized and structured in such a way as to facilitate its own orderly growth, development, and improvement.

The task is difficult because it requires that one ponder so many imponderables: aspects of the future which can be only dimly foreseen; aspects of organizational behavior which have never been studied in any depth; and aspects of systems and structures with which we have had little experience.

The task is somewhat delicate in that it involves tampering with an existing situation -- a situation which to many individuals may be a comfortable status quo: an establishment of educational authorities and organizations; a political system in which educational decision-making has, traditionally, taken a particular form; and a set of cherished beliefs about education which we have consistently hesitated to question.

But let me begin.

My thoughts have been organized around a set of sequential questions:

1. What relevant predictions have been made about the future of society, in general, and of education, in particular?
2. Do these predictions have implications which might form the basis for specific principles or guidelines for education's development?
3. What do we know about the functioning of educational organizations, or "organization sets" and what guidance might be derived from such knowledge?

(In Section A of the paper I attempt to deal with these questions; the answers provide something in the way of starting points for the more difficult issues to follow.)

4. What techniques might be used to guard against certain perverse qualities in organization sets?

(In Section B, in response to this question, I advance two preliminary positions: a case for scientific planning, and a case for coordination.)

5. What are the components of a system-wide organizational model?
6. What variations in this model might be considered? What are the alternatives?

(In Section C, I attempt to develop a comprehensive model and outline a series of possible variations. In Section D, I describe my own preference, in a final position.)

## SECTION A. SOME STARTING POINTS

### 1. The Future -- Selected Projections and Forecasts

Though I do not intend to engage in any detailed treatment of the future here, a brief comment on the emerging science (or pseudo-science) of futurology and its relationship to planning may be appropriate.<sup>1</sup>

Futurologists typically employ three major methods: (1) short-term (up to 10 years) projections of trends on the basis of so-called "hard data" such as population growth and movement, industrial and economic development, manpower requirements, and so on; (2) longer-term forecasts of more general trends, largely through intuitive methods, of such developments as changes in attitudes and values, break-throughs in science and technology, and so on; and (3) the application of broad historical perspectives -- with all their limitations and hazards.

Clearly, futurology is not and can never be an exact science. Yet it is amazing to realize that, long before certain events occurred, futurists were able to predict them with uncanny accuracy. Man's conquest of space, various technological break-throughs and inventions, the pace of urbanization in western society, and social disorder in cities and on campuses are a few of the events that were predicted long

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<sup>1</sup>The Human Resources Research Council, in cooperation with the Commission on Educational Planning, now has under way a series of "Studies of the Future" -- including forecasts of long-term industrial, economic, technological, demographic, cultural, and social developments in Alberta to the years 1980, 1990, and 2005.

These studies are to become the bases of a "Congress on the Future: Education" to be held in Edmonton, December 3-5, 1970.

before they occurred. The evidence compels one to take note of this emerging field of study and its products.

It should be noted, further, that futurists do not claim that absolute futures can or should be predicted. (That would be a fatalistic approach and would deny the possibility of planning.) Instead, they attempt to sketch likely futures or alternative, possible futures, to point out the opportunities for choice, so that planners and policy-makers may intervene at appropriate points. In short, the goal of futurism is to inform planning and policy-making -- not to displace it.

Now what, specifically, has been predicted for the future of society, in general, and education, in particular, in Alberta?

Consider, first, the following rather general projections in the social and economic sphere:<sup>2</sup>

*Trend #1. Continued Industrial Growth and Development*

-- concentrating, over the short term, in the established growth centres of the province, but ultimately, dispersing geographically, as a result of government intervention and/or of the growing incompatibility of industrial activity with the quality of urban life desired by citizens.

*Trend #2. Continued Economic Growth and Per-Capita Productivity*

-- resulting from continued automation and cybernation in industry and resulting in increasing affluence, increasing differentials in personal wealth, increasing leisure for most individuals, a de-emphasis upon the primary and secondary fields of employment, and a corresponding emphasis upon the tertiary fields.

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<sup>2</sup>These trend projections are paraphrased from L. W. Downey, "Goals of Education for the Future," The Encyclopedia of Education (New York: Macmillan, in press).

*Trend #3. Continued Accumulation of Knowledge, Fragmentation in the Fields of Scholarly Study, and Periodic Break-Throughs in Science and Technology*

-- in short, a continuation of the technological "surprises" that have characterized the past five decades.

*Trend #4. Continued Shifts in Culture and Values and New Shifts in Power*

-- the mounting cultural revolution and challenge to established authority will gain momentum and eventuate in a rise in personal, pragmatic behavior norms, in a rise in the level of aspiration of the heretofore "underprivileged," and in a demand that the common man have a greater voice in determining his own destiny and that of his society.

\* \* \* \* \*

Now consider some more specific forecasts related to education and its organization:<sup>3</sup>

*Prediction #1. Perceptions of the Goals of Education Will Shift -- Slowly but Gradually, from the View that Education's Task is to Preserve and Transmit the Cultural Heritage to the Notion that Education's Ultimate Mandate is to Create the Future.*

This shift will have far-reaching implications, including:

- i. the involvement of more and more people in more and more educational activities for longer and longer periods of time;
- ii. an emphasis upon learning how to learn rather than the acquisition of specific knowledge;

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<sup>3</sup>Many of these predictions have been drawn from Harold Dyck, et. al., An Outline of the Future: Some Facts, Forecasts and Fantasies (Edmonton: The Human Resources Research Council of Alberta), pp. 248-282.

- iii. an emphasis upon learning how to live with ambiguity and uncertainty and how to adapt to the emerging future -- while at the same time attempting to shape that future; and
- iv. an increasing emphasis upon the relationship between living and learning, between knowing and doing, between school and community, between the present and the future.

*Prediction #2. The Demand for Educational Opportunity Will Rise Sharply -- Not Only as a Result of General Population Increases, But Also Because Society Will Demand Higher and Higher Levels of Education of its Citizens and Because Individuals Will Demand that Opportunities Be Made Available.*

Specifically, it is predicted that:

- i. the population of the Province will grow from about 1.5 million in 1970 to approximately 1.9 million in 1980, to approximately 2.4 million in 1990, and to approximately 3 million by the turn of the century.
- ii. between 1970 and 1980, however, the elementary and secondary school population will remain fairly constant (due to declining birth rates in the 1960's) -- but with some increases at the primary level (due to future population growth) and increases at the upper secondary level (due to increasing retention rates). After 1980, there will be another up-swing in enrolments at this level.
- iii. by the year 1980, pre-primary school education will likely be provided in some form or another, increasing the population of the educationally involved by about 120,000 or 25-30 per cent of present enrolments in elementary and secondary school.
- iv. by 1980 enrolments in post-secondary institutions are likely to have more than doubled (from approximately 25,500 to 60,000) and by the middle of the 1980's to have tripled (to about 80,000).
- v. within the next decade, the demand for continuing or recurrent education will likely have increased to the point where some kind of formal and systematic provision will be required; by the turn of the



century, continuing education will have become the most demanding of all levels -- when about 50 per cent of the population will be engaged in some form of upgrading, refreshment education.

*Prediction #3. As the Demand for Educational Opportunity Expands, the Very Nature of Education Will Change as Will the Form in Which it is Provided.*

Undoubtedly, forms and institutions not yet envisioned will emerge in the not too distant future. The following are some of the probable developments:

- i. By 1980, the College of Continuing Education is likely to emerge as one of the most important of our educational institutions.
- ii. Also, by 1980, institutions will likely have been created to provide educative experiences for the very young -- during the so-called "critical years," before age six.
- iii. Increasingly, institutions of learning will become multi-purpose and full-time establishments -- operating, in one way or another, 24 hours per day, 7 days per week, 365 days per year.
- iv. In time, educational institutions will not be viewed simply as geographic entities. The educative process will be dispersed into the home, the community, business and industry. The "school" will be viewed as the planning and monitoring centre -- not the sole provider of educational experiences.
- v. Specific marks of terminal parts in the educative process (degrees, diplomas, etc.) will very likely disappear when education becomes truly continuous, life-long, or recurrent.

\* \* \* \* \*

The implications of these predictions are clear: our society, like all others, simply must face the prospect of gradually broadening the base of educational opportunity in the decades ahead.

And so I ask: What principles or guidelines must be observed if the base of opportunity is to be broadened effectively and economically?

## 2. Expanding the Base of Educational Opportunity -- Some Guidelines

It is generally assumed (and I accept the assumption) that as a society moves to expand the base of educational opportunity which it provides for its citizens, two things must happen: first, the overall system must become more comprehensive; and, second, the various sub-systems and institutions must become more specialized and differentiated in their functions.

Comprehensiveness in educational offerings becomes important as more and more people, with wider and wider ranges of capabilities and aspirations, demand more and more opportunities to become educated. Such comprehensiveness is achieved through various means: increasing the offerings of existing institutions; increasing the numbers of institutions; dispersing institutions geographically; and so on.

Specialization and differentiation are complementary to comprehensiveness. As a system expands and becomes increasingly comprehensive (in the interests of universality of opportunity), it must also move toward differentiation and specialization (in the interests of excellence or quality of opportunity).

Differentiation and specialization are achieved in an educational system through the creation of special purpose sub-systems and institutions: a sub-system of community colleges, for example, to extend general and vocational education beyond the high school for all youth;

a sub-system of technical institutes to provide specialized training for particular groups of students; a vocational school to provide trade training for other groups of students; and so on.

Now, assuming that the base of educational opportunity in Alberta will expand in the years ahead, one may ask: are the various organizations and sub-systems likely to observe these guidelines as they seek to establish roles and positions in the expanding systems?

Before attempting to deal with this question, I must digress briefly to examine the concept of "organization sets" and the ways in which organizations tend to behave in such sets.

### 3. Properties of "Organization Sets"<sup>4</sup>

Only recently have organizational theorists begun to pay serious attention to the concept of organization sets and to the study of organizational behavior (policy and decision-making) in the context of "webs of organizations" rather than the single organization. This attention has grown, logically but belatedly, out of the realization that one of the most significant features of any organization's environment is the other organizations which inevitably impinge upon it.

In the case of the educational organization, the set which constitutes the organizational environment consists not only of all the other educational institutions in the web, but also of the countless

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<sup>4</sup>The concept, "organization set," is a derivation of Merton's earlier notion of "role set." It has been used, for example, by Palola in his analysis of educational planning in four states of the U. S. A.

governmental, private, and professional agencies that influence and are influenced by the policy and decision-making processes of each member organization of the set.

More specifically, the set which is of concern to us here is the set of educational systems and institutions which together comprise the total educational enterprise in Alberta. It includes: (1) a system of elementary and secondary schools and a Department of Education; (2) a system of colleges and a Colleges Commission; (3) a system of universities and a Universities Commission; and (4) a network of agencies and institutions -- educational, governmental, and other -- which influence or are a part of the overall system.

The point of organization set theory is simply this: in a set, when certain kinds of policies are made by a single member, without reference to other members, the entire set feels the impact. For example, no educational institution can determine its own mission and programs, can fix its own budget, can limit its own clientele, or the like, without seriously affecting all other educational organizations in its environment.

What, then, can be assumed, with any degree of certainty, about policy and decision-making behavior in ongoing organization sets? The following has been postulated:<sup>5</sup>

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<sup>5</sup>These hypotheses are paraphrased from William M. Evan, "The Organization-Set: Toward a Theory of Interorganizational Relations," in Approaches to Organizational Design, James B. Thompson, Editor (Pittsburgh: University of Pittsburgh Press, 1967), pp. 173-191.

1. *The more similar the goals and functions of members of an organization set, the greater the competition among them and, hence, the less the opportunity to allow decision-making autonomy. (A referee becomes necessary.)*
2. *The larger the set and the more diverse its goals, the greater the likelihood of coalitions among its members and, hence, the greater the likelihood that decision-making will take the form of compromise and trade-off rather than rational planning. ("You support me in my request and I will support you.")*
3. *The more complementary the functions of members of a set, the greater the likelihood of cooperation. (Where no threat exists, cooperation comes easy.)*
4. *The greater the overlap in membership among members of a set, the more similar, less autonomous, and lacking in creativity the members are likely to become. (Individuals tend to create carbon copies of earlier creations.)*
5. *The more concentrated the input of resources, the lower the autonomy of members of the set. (Consider the case of a private system of colleges -- with each institution solely dependent upon government for its resources.)*
6. *The larger and the more diverse the set, the greater the likelihood of displacement of goals, duplication of effort and so on, and, hence, the greater the need for coordination.*

Since our concern here is with the expansion of educational

opportunity and, hence, with a probable need to create new institutions in the future, it might be further asked: Is then anything particularly noteworthy about a set which is in the process of expansion? I would hypothesize as follows:

1. *As new organizations are created to become new members of an existing organization set, they tend, typically, not to differentiate themselves from existing members, but rather to seek acceptance and credibility by patterning themselves upon existing, successful members. (It is for this reason, for example, that so many new educational institutions, once planned to be different, fail to become, in fact, different. Consider, for example, the difficulties encountered years ago when attempts were made to create vocational schools which were truly distinctive.)*
2. *As new, special-purpose organizations are added to an organization set, the older, multi-purpose organizations tend to view these newcomers as threats; they endeavor to ascribe lower statuses to them; and they seek to control them through various means. (Consider, for example, the well known attempts of the older universities to exercise control over the new colleges through accreditation regulations, control of staffing, veto power over curriculum change, and so on.)*
3. *As new special-purpose sub-systems are added to the set, the members of the sub-system typically attempt to achieve power*

*and influence through the formation of informal coalitions and/or formal sub-associations. (Consider as a case in point the emergence of the Colleges Commission in Alberta.)*

## SECTION B. SOME PRELIMINARY POSITIONS

### 1. A Case for System-Wide Planning

In summary of the foregoing considerations, it might be claimed:

1. that policy and decision-making behavior in organization sets tends to assume certain predictable, but somewhat perverse, forms;
2. that orderly growth and development in an educational system involves the application of such principles as comprehensiveness and differentiation of function; but
3. that such educational principles are not likely to be accommodated in the typical growth and policy-making behavior patterns of organization sets.

Accordingly, I conclude that what is needed to guide the development of any system of education is some form of planning mechanism -- some device for causing all members of the organization set to work cooperatively for the achievement of goals which may transcend the goals of any single institution or sub-system.

So I ask: What is the present status of educational planning? What potential does it hold as a technique for guiding the growth and development of an educational system such as ours?

Planning is, essentially (or, perhaps, ideally), a mechanism for

organizational self-renewal -- or, indeed, for the growth, development, and self-renewal of an organizational set. Without systematic planning, organizations and systems tend to become obsolete in their goals, routinized in their procedures, and out of touch with their environments.

The bases of planning are, essentially, the experiences of the past and anticipations of the future.

Planning in education is still very much an art; it is heavily dependent upon intuition, experienced sensitivity, and practiced judgment. But it is rapidly becoming something of a science and something of a technology; the strategies of the economist, the demographer, the systems analyst, the futurist and other scholars add substantially to the activity's scientific base.

In its earlier forms, educational planning was concerned largely with: (1) preparing for increases in enrolment; (2) reorganizing administrative structures; (3) calculating needed facilities; (4) assessing financial resources and needs; (5) revising curriculum content; and (6) plotting the creation of new institutions.

At their best, these early forms were limited to: (1) impressionistic stock-taking of the status quo; (2) intuitive assessments of unmet needs; (3) imaginative creations of alternative courses of action; (4) judgmental evaluations of the probable costs and benefits of various alternatives; and (5) the use of communication and the political processes of persuasion to bring about the implementation of the alternative selected.<sup>6</sup>

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<sup>6</sup> In the review of the "state of the art" of educational planning I have borrowed extensively from Francis S. Chase, "The Status of



Though the planning efforts and forms of the past have succeeded in advancing our educational systems to their present respectable status, they are, I believe, quite inadequate for the future. Various shortcomings are now in evidence: (1) a lack of articulation between long-range social forecasting and the planning process; (2) a lack of specificity in defining the mandates of various systems and institutions; (3) insufficient precision in establishing indices of efficiency and in the specification of costs and benefits; (4) inadequacy in the tools and techniques of evaluation; and (5) a lack of coordination among planning endeavors and between planning and policy-making activities.

The newer approaches to educational planning lean heavily upon science and technology. Though some of these technologies are, as yet, unrefined and not fully tested, their promises are encouraging. New techniques for studying the future promise to provide planners with more lead time and with more precise images of the future to be planned for. New techniques for calculating the benefits to be realized and/or the increased effectiveness to be achieved from various investments promise to make choice a more rational process. New methods of systems analysis and systems planning offer the prospect of holding an entire system under review as planned intervention takes place. And the development of new indices of opportunity, of price, and of quality promises to make rigorous evaluation in education a real possibility.

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Educational Planning in the United States," Paper prepared for the Phi Delta Kappa Symposium on Educational Planning in the United States, November 12-14, 1967.

Planning activities vary in scope, all the way from the so-called macro-planning functions which serve total systems to micro-planning functions which serve specific institutions.

I take the position that, in an educational system such as Alberta's, planning agencies are required at three levels:

1. *At the provincial level -- to anticipate the future course of society, to identify emerging educational needs, to define the mandate of the various educational sub-systems, to rationalize and preside over the allocation of resources to the various sub-systems, and to take stock of the effectiveness of the overall system and its component parts.*
2. *At the sub-system level (the school system, the college system, and the university system) -- to define the role of specific institutions, to correct for gaps and overlaps within the sub-system, to allocate resources, to give leadership to evaluations procedures, and so on.*
3. *At the institution level (the school, the college, the university) -- to assess the specific needs of specific clients, to develop programs, to evaluate performance, and to maintain contact with other levels of planning in the system.*

Later in this paper, as I attempt to develop organization models, I incorporate the notion of a planning capability.

## 2. A Case for Coordinating Mechanisms

The case for a province-wide mechanism to accommodate a network of planning capabilities was implied in the foregoing discussion of the nature of and need for planning. But a more explicit statement of the case may be in order.

Planning is essential at all levels or policy and decision-making points in the enterprise: at the system level; at the segment level; and at the institution level. Indeed, where more than one system is involved in a single political jurisdiction (as in the case of Alberta) certain kinds of planning (the allocation of resources, for example) inevitably takes place at a level above the system. And such planning may take forms which are not scientific and not rational.

The point is this: because planning does take place and ought to take place at various locations and levels in the enterprise, it is essential that some mechanism be established to carry a comprehensive planning capability. Such a coordinating mechanism should serve the planning process in several ways:

1. *By reducing duplication of effort. For example, certain kinds of projections and forecasts might serve to inform several planning units; it would be uneconomical for such projections to be produced by each planning group that requires them.*
2. *By providing an arena for negotiating agreements as to the roles and functions of various segments or sub-systems. One of the critical functions of planning is to delineate roles*

and functions. When planning activities are system-based or institution-based, such delineations, if made at all, tend to be made unilaterally. And unilateral decisions not only tend to breed hostility and mistrust; they also result in duplication and/or gaps.

3. By providing for planning capabilities in areas which transcend the jurisdiction of specific systems and their planning units. For example, in a situation (such as Alberta's) where three educational systems draw upon the resources of a single political-economic system, resource allocation planning tends to be fragmented. Or worse, it may be removed entirely from the educational planning realm and become a purely political matter.
4. By providing for inter-institution, inter-system stimulation. It is a generally recognized fact that when institutions plan and function "on their own," they tend to become routinized and closed; when they collaborate with other institutions, they are more inclined to remain open, alive, and alert to new opportunities.
5. By providing for the quick mobilization of resources to meet crisis-like situations. For example, one might predict that in the near future education will face certain kinds of crises: (1) a numbers crisis; (2) a fiscal crisis; and (3) a relevance crisis. Indeed, these crises are already upon us. Some of these may assume such proportions as to

*strain the efforts of all planning agencies. Cooperative efforts are likely to be stronger and more sustained than individual, fragmented efforts.*

6. *By coordinating certain aspects of curriculum planning -- such as continuity, articulation, transfer, and so on.*

For all of these reasons I conclude that collaboration among planning units is essential. But collaboration does not and will not simply happen; it must be engineered through the provision of the sorts of mechanisms and linkages which create interdependencies in planning and operations.

I take the position that such a mechanism ought to be created. Later I attempt to describe it in the context of a province-wide system.

## SECTION C. THE ALTERNATIVES

### 1. Summary and Introduction

It may be well to pause, at this point, to review and summarize the ideas and positions developed thus far. I have attempted to make four specific points:

1. As one contemplates certain aspects of the future of society, one cannot help concluding that the base of educational opportunity will be broadened -- to provide more options for more people.
2. As the base of educational opportunity is expanded, it is important that the principles of comprehensiveness, diversity, specialization, and so on be carefully safeguarded.

3. But organization sets, under conditions of expansion, demonstrate certain perverse qualities -- qualities which could cause them to ignore or subvert the principles of educational expansion.

4. Hence two activities become imperative:

- i. system-wide planning, and
- ii. system-wide coordination.

This leads us to the really difficult questions: What kind of planning and coordination linkages? Formal or informal? A loose consortium or a structured super-system? Cooperatively or authoritatively maintained?

In our society there is a strong inclination to resist master-planning and to avoid authoritative coordinating structures.

These inclinations are quite understandable (indeed, I find myself in considerable sympathy with both of them). Master-planning and rigid adherence to the master-plan have been viewed, traditionally, as the pursuits of controlled societies -- societies in which the goals of the state take precedence over the goals of the individual. Similarly, authoritative coordination and elaborate structures have been seen as the marks of centralized, bureaucratic societies -- societies in which freedom, along with the creativity and inventiveness that freedom allows, is sacrificed in the name of efficiency and an assumed superior competence in the central authority.

When the arguments against central planning and coordination are couched in terms such as these, they become disturbing. Indeed, planning

and coordination become to some people downright undemocratic, un-Canadian, and un-Albertan, when viewed in this context.

But the issues are not that simple. Though the concept of a carefully planned society may, indeed, be repugnant, the chaos that results from lack of planning is equally undesirable. Though the notion of central coordination and control may also be unpalatable, the inefficiency, duplication of effort, and wastage of resources which result from lack of coordination are equally unacceptable.

Chaotic, unplanned, uncoordinated development is not the mark of a free society. On the contrary, real freedom implies an opportunity to make choices. And planning is nothing more than a rational approach to choice.

So the dilemma is posed: How much freedom, how much control? How much centralization, how much decentralization? How monolithic the structure, how pluralistic?

The evidence in support of various beliefs regarding the effects of various organizational conditions upon behavior and performance in an organization set is sketchy, indeed. However, on the basis of earlier considerations, the following might be postulated:

- 1(a) *The more monolithic the structure of any institution of society, the more likely it is to be closed to inputs from its environment and, hence, the more likely it is to be resistant to change; and*
- 1(b) *The more centralized the policy and decision-making authority in any system of organizations, the lower will*

*be the level of creativity and inventiveness in the individual organizations.*

but

- 2(a) The more pluralistic the structure, the greater the likelihood of duplication of effort, of unmet needs remaining unrecognized, and of chaotic growth; and*
- 2(b) The more decentralized the policy-making authority, the less the likelihood of coordination and cooperation.*

Now, if these two sets of hypotheses do, in fact, hold in all cases, under any circumstances, our dilemma is virtually insoluble. For to opt in one direction is to ensure pluralism, creativity and inventiveness at the price of chaotic growth and duplication of effort; to opt in the other direction is to preserve efficiency and coordination, at the price of stagnation and insensitivity to changing needs.

But I would hypothesize further, as follows:

- 3(a) The greater the emphasis upon empirical-rational modes of coordination (and correspondingly, the less the emphasis upon the normative-reeducative and/or the coercive-compliant), the lower the price to be paid in terms of stunted creativity, loss of inventiveness, etc.;*  
and
- 3(b) The greater the emphasis upon coordination at the planning and political levels (and correspondingly, the less the emphasis at the operational level), the lower the price in terms of impaired creativity and inventiveness.*



Now, if these hypotheses are assumed to hold under most conditions, then at least a partial resolution of our dilemma begins to emerge. For it should be possible [as suggested in #3(a)] to base coordination largely upon the discipline of scientific planning (the empirical-rational mode) and only minimally, if at all, upon the paternalistic mode (normative-reeducative) or the legislative (coercive-compliant).

Furthermore [as suggested in #3(b)] it should be possible to draw careful lines of demarcation between planning and operations, on the one hand, and planning and political decisioning on the other. And having done so, it should be possible to allow maximum autonomy at the operations level; to interject empirical-rational modes of coordination at the planning level; and to expect decision-making at the political level to be influenced, appropriately, by the other two.

Now one further hypothesis:

4. *In the normal course of growth and development, organization sets (like organizations or, indeed, like individuals) pass through a series of phases: first, a period of random, unplanned and undisciplined growth; second, a period of disciplined attention to the environment and a growing awareness of responsibility to it; and third, a period of mature, self-confident, cooperative productivity.*

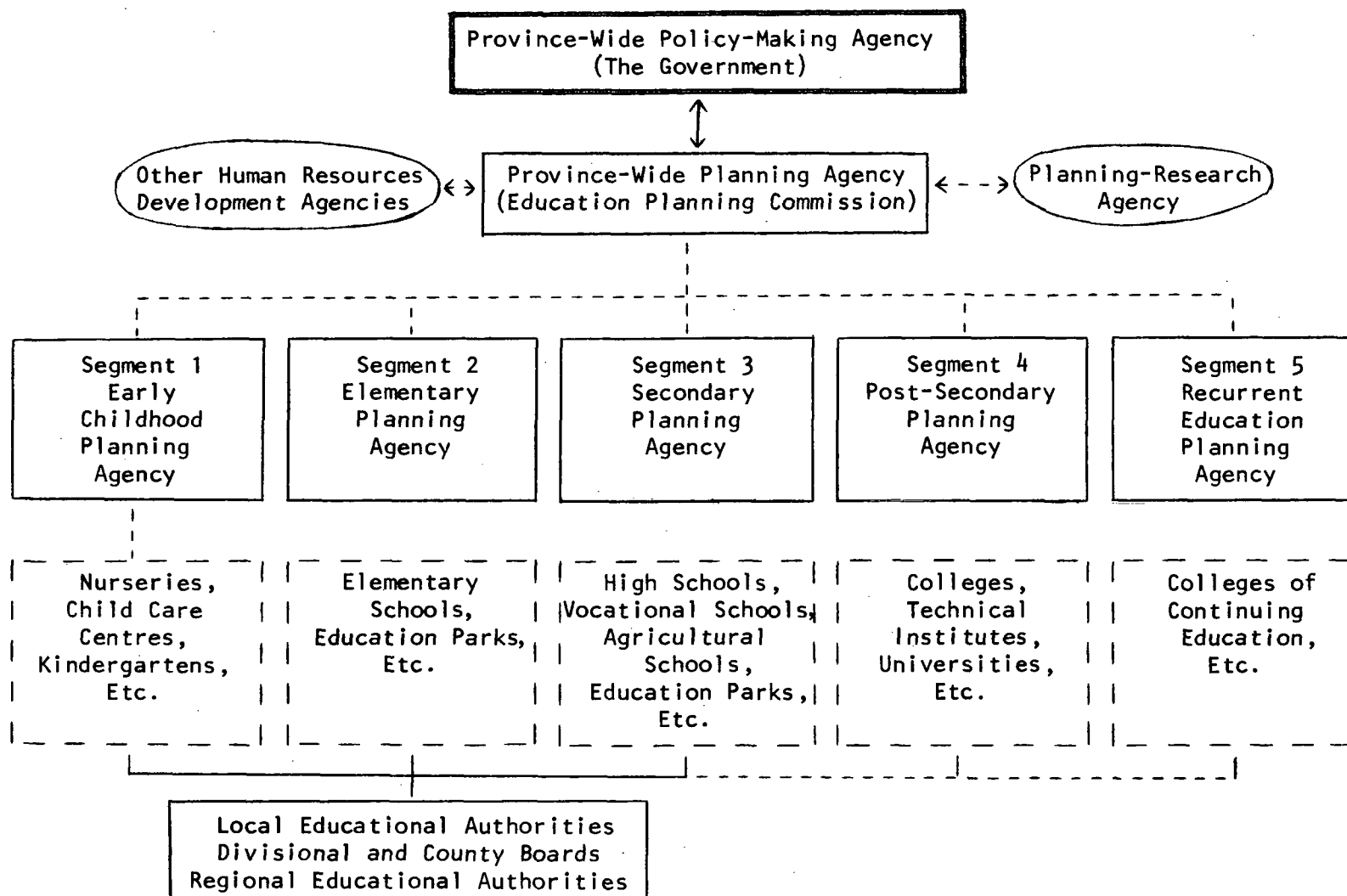
If such a growth and maturation pattern is, in fact, typical and more or less inevitable, then it might be claimed that Alberta's educational system, as a whole, is just now on the threshold of the second phase (recognizing, of course, that there are wide variations in the age

and maturity of existing institutions and sub-systems). And if it is, it would follow that the time has come to find a discipline to guide the further growth and maturation of the system throughout this second phase.

## 2. Components of a Comprehensive Model

I conceive of a general model of a total educational system, as illustrated in the figure on page 25, in the following terms:

- i. a *Province-Wide Planning Agency* -- to coordinate and facilitate planning efforts throughout the system and to serve as the major link with policy-makers (government);
- ii. a semi-autonomous *Planning/Research Agency* -- to be sensitive to the research needs of the major planning agency and to engage in its own studies of the planning process and planning-related research;
- iii. a *linkage* (perhaps informal, but at least functional) between the educational planning agency and other *Human Resources Planning Agencies* -- to ensure that all social services delivery systems function as cooperatively as is required to ensure efficiency and effectiveness;
- iv. sub-planning units for the major *segments* of the system. (I show five of these, to correspond with the five major phases or levels of education. But the number could vary.)



- v. the innumerable *institutions* which comprise the various segments; and
- vi. the *local educational authorities* whose responsibility it is to adapt plans to local needs and to implement and administer them.

Certain other, more subtle, concepts are incorporated into this general model:

1. Linkages among and between the various components of the planning system (shown in dotted lines) need not, indeed should not, be of the authoritative, autocratic type. I assume that the planning agency should be largely informative, advisory, and facilitative -- not coercive. Its leadership authority should grow out of its competence and the value of the service it is able to provide -- and out of the mandate which it receives from society and government. (The creation of a new bureaucracy is not what I have in mind; indeed, much of certain existing bureaucracies might be subsumed in the planning agency which I advocate.<sup>7</sup>)

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<sup>7</sup> Insofar as possible, I have refrained in this paper, from making direct references to existing structures and bureaucracies in the Alberta educational system. Clearly, however, I am making implicit assumptions at every turn. In this particular case, to make my views explicit, I would propose, for example, that the existing Department of Education become a part of the Province-Wide Planning Agency; that it increasingly perform a planning and advisory role; and that it continue to deemphasize its directive role in education. [Dr. T. C. Byrne has advocated this concept in terms of a "leadership-service role." I happen to believe that the concept of a "planning role" though very similar, if not identical, is somewhat more expressive of the intended function.]

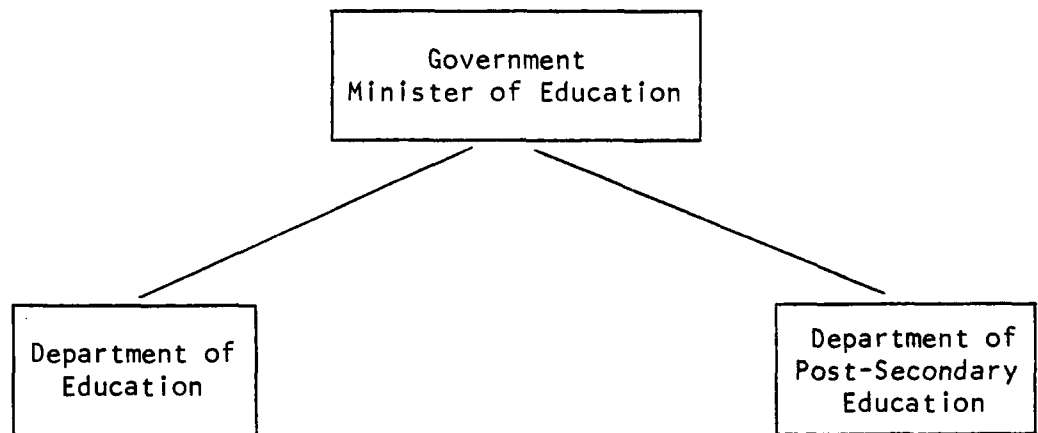
2. Local and/or regional authorities, such as School Boards and Boards of Governors, are shown as exercising authority over institutions from several segments.

### 3. Variations in the Model: Alternative Structures

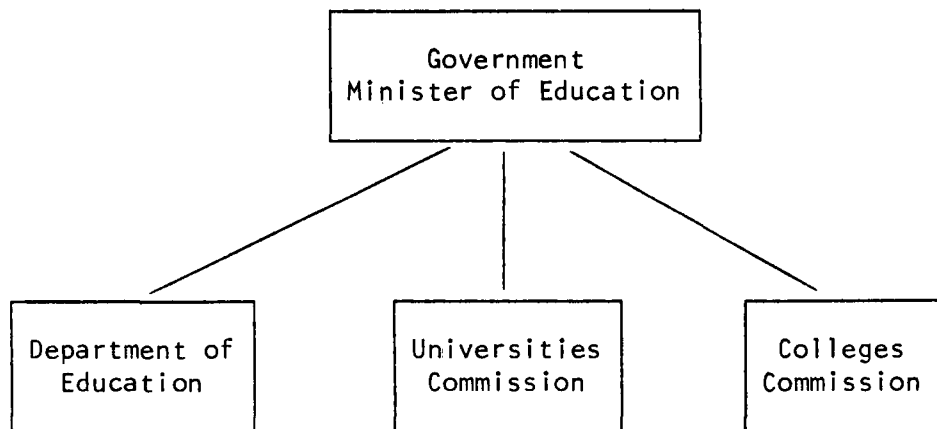
Now, if it can be assumed that this general model includes all the necessary components, then it simply remains to be asked: what variations or adaptations are possible to create a series of alternative forms -- from which to select the best?

First, there are opportunities for variations in the number of province-wide planning agencies. My general model includes only one. But the number could be as many as the number of segments in the system. Consider the following:

1. *The Dual Systems.* In this system (essentially the one in operation in Ontario) there are two Departments of Education, each with its own planning capability, each headed by a Deputy Minister, and each answerable directly to Government through the Minister of Education.



2. *The Multiple-System.* In this system (essentially the present Alberta system) there is a Department of Education which plans and administers part of the system; a Universities Commission which is the planning agency for another part, and a Colleges Commission, with a similar function for yet another part.



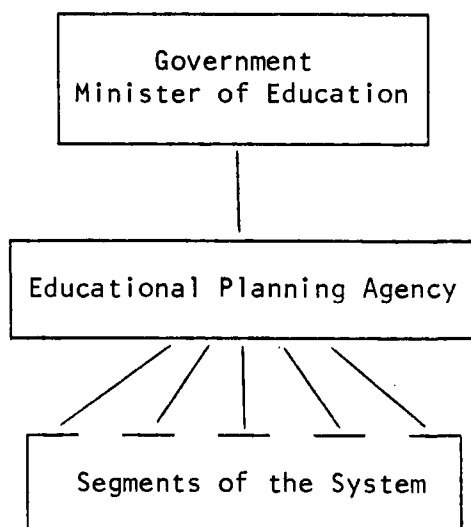
Further variations on this option could be developed. But the significant points of analysis can be made in the context of these examples.

In the Dual System, as in the Multiple-System, there are inescapable dangers that allocative decisions (and others) may be made on political rather than rational bases; hence, that competition for political favor may take precedence over cooperative planning; and that diseconomies and lack of effectiveness may result.

There is also an inescapable danger that there will be duplication of effort in planning; that needs will go unmet, because they fall

between jurisdictional cracks; and that our "principles of expanding educational opportunity" may go unheeded in the expansion of the "organization set."

For these and other reasons (dealt with elsewhere in this paper), I favor a single, coordinated system -- which encourages each segment and institution to be as inventive and creative as possible, but within the terms of its mandate and its role in the total system.



Further opportunities for adaptation of the general model become apparent when one realizes that the number of segments is similarly variable.

In Alberta, we now have, for planning and jurisdictional purposes, three major segments: the schools, the colleges, and the universities. And one might ask:

1. Why are colleges and universities separated into two segments, when the two are concerned with the planning and provision of educational

opportunities at a single level? Surely this situation must work to the detriment of sound planning. Add to this the separate statuses of the institutes of technology and the schools of agriculture, and the potential chaos and waste becomes really troublesome.

2. Why is there no specific provision for continuing, recurrent education? At present, some attention is given to this important phase by all of the existing segments. But no one is responsible for assessing needs, forecasting trends, planning overall programs, or coordinating activities. As a result, there appear to be, on the one hand, unnecessary duplications of effort, and on the other, serious gaps in programs.

3. Finally, one must ask: Why does the important area of Early Childhood Education remain, as yet, "unincorporated"? Evidence is fast accumulating to indicate that efforts to educate the individual succeed or fail during the early childhood years (from birth to about age 8).

Of course, it can be argued, and quite convincingly, that it is the responsibility of the home to educate the child during these early years. And I for one would not advocate that "the system" snatch the child from the crib at age 2 and take him to be "educated." But I do wonder if it would not be appropriate at this time to add an early childhood segment to our educational system. The major tasks of such a unit might be: (1) to give careful study to the impact of various forms of educative experience during the early years; (2) to plan and develop "programs" which might be organized and operated in cooperation



with the home and other agencies; and (3) to mount appropriate programs of "education about early childhood education" -- for parents and others engaged in the task.

In summary, I would opt, at this time, for a *Four-Segment System of Education*, made up as follows:

*Segment 1 -- Early Childhood*

*Segment 2 -- Elementary and Secondary*

*Segment 3 -- Post-Secondary*

*Segment 4 -- Continuing and Recurrent*

Finally, one could consider the possibility of geographic variations in our organizational model (as has been attempted, for example, in the cities of New York and Chicago).

If this option were to be considered, it would be necessary to conceive of segments in terms of "geographic regions" rather than "phases or levels in the educative process." The province might be divided into a number of educational planning regions,<sup>8</sup> each of which would include a complete set of educational opportunities, and each of which would become a segment in the total planning network.

I tend to reject this option on the grounds that Alberta is, as yet, too sparsely populated to create educationally and economically viable regions -- regions which could support all forms of educational opportunity, without imposing an undue burden upon tax-payers.

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<sup>8</sup>Indeed, these might ultimately become Multi-Service Planning Regions.

However, the concept of "regional planning" is in many ways attractive. In large urban areas, for example, where all segments of the system are represented, some sort of regional planning capability would be desirable -- to coordinate and articulate the efforts of all agencies. Similarly, in large, sparsely settled rural areas where minimal opportunities are difficult to provide, a regional planning agency would be desirable -- to foster cooperation in efforts, to plan for shared facilities, and so on. (The Regional Offices of the Department of Education now attempt to perform these and other functions.)

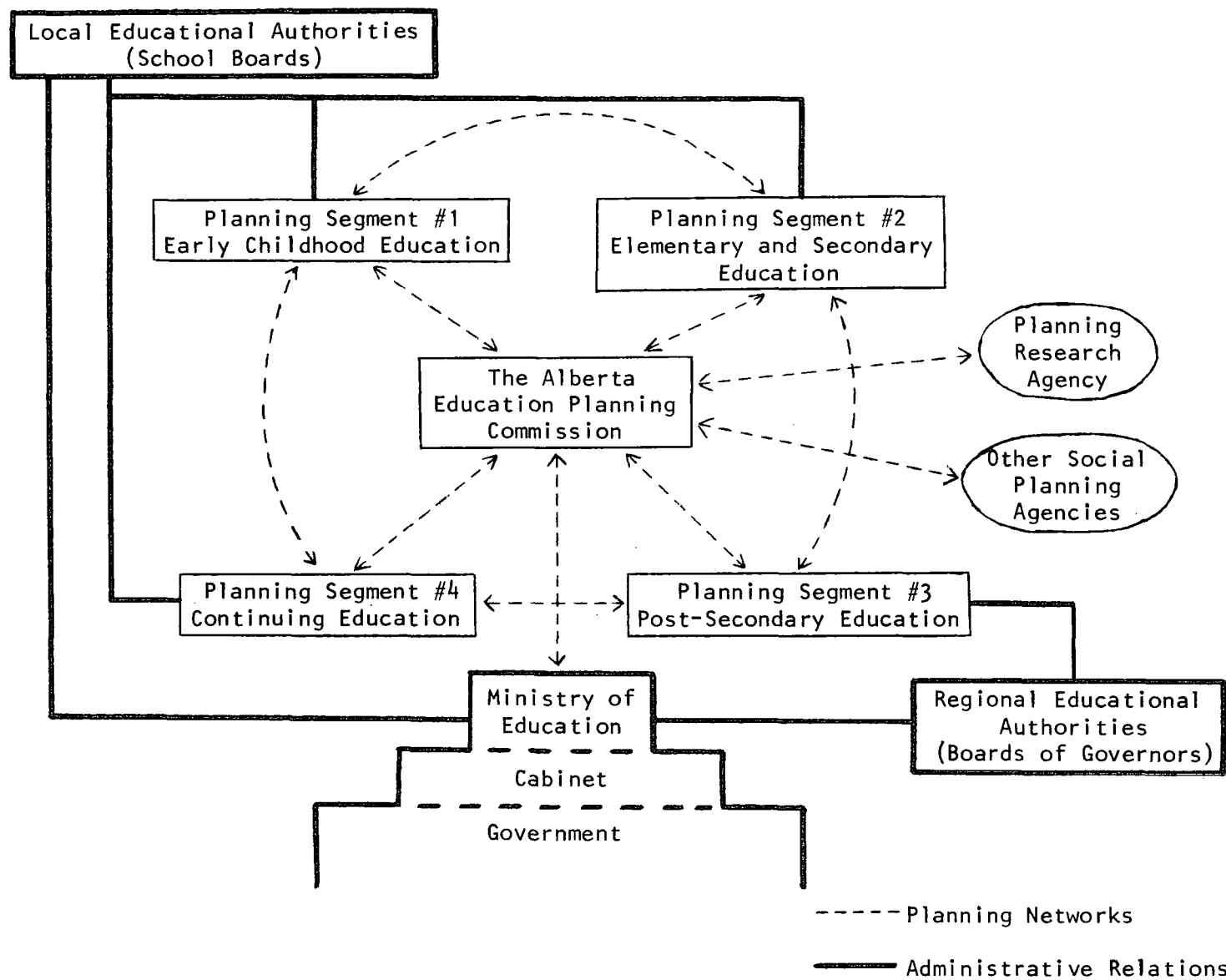
So although I would argue that regionalism should not become the primary basis upon which segments of the educational system are created, it should nevertheless be considered where appropriate. Indeed, it might be possible to combine some forms of regional coordination and planning with the overall organizational system which is adopted.

#### SECTION D. A FINAL POSITION

Throughout this paper, I have moved (sometimes subtly, sometimes obviously -- sometimes directly, sometimes circuitously) toward a position or set of positions which I would be prepared to support.

These positions are summarized in the planning and coordination model outlined on the next page.

By way of conclusion, and in summary of certain ideas which may not be explicit in the model, let me comment briefly upon my vision of the way in which the system might function:



1. The Central Province-Wide Planning Agency would be responsible for:

- i. the sorts of planning which have been referred to as *exploratory (or normative) planning* -- in which the aim is to read the public will, to seek consensus regarding goals, to establish educational priorities, and to set targets and directions for the entire system;
- ii. the sorts of planning which have been referred to as *approximation (or incremental) planning* -- in which the aim is to strive, through the use of scientific and technological means, for ever closer approximations of goals and targets;
- iii. *advice and service*, not only to the various educational sub-systems, but also to appropriate policy-makers.

2. The Planning-Research Agency would be responsible for:

- i. the collection and analysis of *data and statistics* for use by all planning agencies;
- ii. refinement of the *technologies and tools* of planning;  
and
- iii. the development of *evaluative techniques* and the *indices and accounts* required to "monitor" the system.

3. Finally, I must note that in the system which I envision,

*the public interest* will be carefully safeguarded (I would be the last to advocate that educational planning and policy-making be taken over by the technocrats).

Specifically, I envision a planning agency which is responsive to the public will and to individual need.

And I envision an overall coordinating system in which policies are, in fact, *made* by the duly elected representatives of the people (the government, local authorities, and regional authorities), but in which policy-making is appropriately *informed* by "the experts."



